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Before the FEDERAL COMMUNICATIONS COMMISSION Washington, D.C. 20554 In the Matters of Deployment of Wireline Services Offering Advanced Telecommunications Capability CC Docket No. 98-147

COMMENTS OF AMERITECH

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I. Introduction & Summary

In these Comments on the Further Notice of Proposed Rulemaking, Ameritech disagrees with the tentative conclusion that the Commission has authority to order unbundling in the form of "line sharing." Absent a finding that line sharing meets the "necessary" and "impair" standards imposed by section $251(d)(2)^2$ of the Telecommunications Act of 1996 -- a finding not supported by the evidence -- the Commission may not establish new network elements. Similar action by any state is likewise barred by the statute. Moreover, access to the "high frequency" spectrum on a loop can only be ordered by the Commission if the incumbent carrier uses that loop to provide both voice and advanced services. In any event, a number of practical, technical and operational and policy issues make mandatory line sharing a poor choice at present.

¹ In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, Further Notice of Proposed Rulemaking, released March 31, 1999 (hereinafter "FNPRM").

² 47 U.S.C. 251(d)(2)(A), (B).

Ameritech concurs in the Commission's tentative conclusion that the industry process used to set standards for interference issues (including power spectral density, or "PSD" masks), spectrum compatibility and other issues must be open to meaningful, balanced participation by all industry segments. The T1E1.4 Committee, which is currently active in these areas, offers the best choice for this ongoing standards process, in which the Commission's important oversight role should continue. Development of industry-standard operational and deployment practices should continue to be handled by the Carrier Liaison Committee fora (including the Network Interconnection and Interoperability Forum and the Ordering and Billing Forum), which are also designed and managed in a manner that ensures open processes based on industry contributions and consensus. However, the Commission need not establish a specific process or criteria for resolution of interference disputes. As has been the case historically, industry standards efforts will establish objective and measurable criteria that will reduce the need for arbitration of such disputes in existing fora -- including state commission arbitration mechanisms.

II. Line Sharing

A. The Commission Has No Legal Authority To Mandate Line Sharing In The Absence Of A Meaningful Section 251(d)(2) Analysis.

The Commission tentatively concludes that it has authority pursuant to Section 251, to order line sharing.³ This conclusion is clearly improper, because the Commission completely ignores the statutory requirements of section 251(d)(2) of the 1996 Act;⁴ i.e.,

³ FNPRM, ¶ 98.

⁴ 47 U.S.C. 251(d)(2). (See also FNPRM statements of Commissioner Powell, concurring in part, and Commissioner Furchgott Roth, dissenting in part; both of which believe the Commission's tentative conclusion is premature because of the failure to apply any section 251(d)(2) standard to line sharing.

the "necessary" and "impair" standards. The Commission itself concedes that the Supreme Court's decision in <u>Iowa Utilities Board</u> applies to any determination of whether access to line sharing should be required.⁵ Remarkably, however, the Commission does not mention -- let alone apply -- these statutory requirements in its discussion of line sharing. Furthermore, a review of past Commission findings and current marketplace facts demonstrates that line sharing does not meet the statutory standards for mandatory unbundling of competitive local exchange carriers ("CLECs").

The failure to require line sharing would not "impair" the ability to offer advanced services, because CLECs do not need line sharing in order to provide advanced services. To begin with, the Commission has already noted that CLECs currently lead the incumbent local exchange carriers ('ILECs") in deployment of advanced services capability.⁶ This is true because CLECs have a number of technological options (e.g., cable modems, satellites, and broadband radio facilities) over which they can provide advanced services, many of which do not use ILEC facilities in any way.⁷

Through their use of the diverse types of facilities already available, and via strategic alliances with major industry participants such as AT&T, Microsoft, MCI Worldcom, ICG, NEXTLINK and Qwest, CLECs already enjoy substantial commercial success both in Ameritech's region and nationwide. Data CLECs are already providing broadband services in each of the country's ten largest metropolitan statistical areas, and

⁵ FNPRM ¶ 95, citing <u>Iowa Utilities Board v. F.C.C.</u>, 119 S. Ct. at 733-36. Clearly, the Act's definition of a network element, which encompasses "features, functions and capabilities that are provided by means of such facilities or equipment" (47 U.S.C. 153 [29]), is unquestionably broad enough to encompass access to a portion of the loop's bandwidth.

⁶ Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, CC Docket No. 98-146, Report, rel. Feb. 2, 1999 (hereinafter "Advanced Services Report"), ¶ 53, 56, 58.

⁷ The Commission itself has remarked that the existence of choice among competing delivery technologies for advanced services "opens the possibility of intermodal competition, like that between trucks, trains and planes in transportation. By the standards of

in half of the top fifty. The Association for Local Telecommunications Services ("ALTS") reports that CLECs "continue to deploy ... advanced technologies at a dramatic pace," offering advanced services to over five million homes today and projecting four times that number by the end of 1999. These facts directly refute any claim that access to unbundled spectrum on ILEC loop facilities is "necessary" to CLECs wishing to compete, or that lack of such access has in any way "impaired" competitive entry. Therefore, there is no support for the Commission's apparent justification for line sharing that "... loop costs make a stand-alone data service uneconomic". 10

If the Commission examines the facts, it will conclude that line sharing cannot meet the section 251(d)(2) standards.

There is also no factual basis for the Commission's concern that "in the absence of line sharing, the competing carrier effectively may be forced to provide both voice and data over the local loop it leases from the incumbent." Existing data CLECs such as Covad and Concentric currently offer a range of data-only services over unbundled ILEC loops, with significant commercial success. Moreover, despite the Commission's fears that they would incur a "dual investment" in "two technologies -- circuit switched technology for voice transmission and packet switched technologies for data," such

traditional residential telecommunications, there are, or likely will soon be, a large number of actual participants and potential entrants in this market." Advanced Services Report, ¶ 48.

Petition of Association for Local Telecommunications Services for a Declaratory Ruling Establishing Conditions Necessary to Promote Deployment of Advanced Telecommunications Capability Under Section 706 of the Telecommunications Act of 1996, CC Docket No. 98-78, filed May 27, 1998, at ii.

⁹ In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98, Comments of United States Telephone Association, filed May 26, 1999, Attachment: "UNE Fact Report", at VI-19.

¹⁰ FNPRM, ¶ 96.

¹¹ FNPRM, ¶ 99.

carriers can and do choose to provide voice services using Internet Protocol ("I/P") and other packet voice technologies. Of course, instead of providing voice services itself, a CLEC leasing an unbundled loop to provide a data-only offering could choose to unbundle the spectrum on that loop itself and offer it to another carrier.

For the same reasons, Ameritech disagrees with the Commission's tentative conclusion that "nothing in the Act, our rules, or caselaw precludes states from mandating line sharing" Specifically, state commission action is subject to the limitation of section 251(d)(2). Clearly, state-mandated unbundling that is inconsistent with section 251(d)(2) is precluded by section 251(d)(3)(B), which requires that any regulation, order or policy of a state commission must be "consistent with the requirements of this section".

Therefore, a state commission's authority to require the provision of any network element -- including line sharing -- must also comply and be consistent with the necessary and impair standards contained in the 1996 Act. As the Supreme Court held, "[w]ith regard to the matters addressed by the 1996 Act," the federal government "unquestionably"... "has taken the regulation of local telecommunications competition away from the states." Section 251(c)(3) and 251(d)(2) plainly specify the scope of an incumbent LEC's obligation to provide unbundled network elements. Accordingly, states must "hew" to that line established by Congress, and may not impose different unbundling obligations on an ILEC. Indeed, any effort by a state to impose requirements that deviate from the requirements that Congress imposed in the Act – such as an

^{12 &}lt;u>Ibid</u>.

¹³ FNPRM, ¶ 98.

¹⁴ AT&T Corp., 119 S. Ct. at 730, n.6.

unbundling requirement that does not meet the Act's necessary and impair tests – would run afoul of the statute, even if the state regulations are authorized by state law.¹⁵

B. Access to the "High Frequency" Portion of the Loop Can Only Be Required If Also Used By the Incumbent For Advanced Services.

The Commission also tentatively concludes that an ILEC which itself uses its local loops to provide both exchange and advanced services must provide requesting carriers with access to the frequencies above those used for voice services. Again, the Commission fails to specify its legal authority to reach such a conclusion. To the extent it is based on the unbundling requirement of section 251, then it again fails for lack of any section 251(d)(2) analysis. To the extent it is based on some unarticulated "nondiscrimination" principle, then the Commission's conclusion is necessarily limited to ILECs using the "same line" to provide both voice and advanced services. Because of numerous technical and operational issues, when Ameritech provides advanced services, it does not do so over a loop which it also uses to provide local exchange voice services. By choosing this service delivery method, Ameritech has not incurred the substantial additional costs that would result from the need to provide for the operation, maintenance and administration of such multi-use loop applications. Since both Ameritech and CLECs choosing to offer advanced services over Ameritech's loop plant face the same costs and operational issues, there is no danger that CLECs

"will be hampered in their ability to compete in providing advanced services to end users because the (CLEC) would have to obtain a new line from the (ILEC) whereas the (ILEC) could provide advanced services far less expensively by using the existing line."¹⁷

¹⁵ See Grade v. National Solid Waste Management Association, 505 U.S. 88, 98-100 (1992).

¹⁶ FNPRM, ¶ 99.

¹⁷ Ibid.

Thus, if the Commission's conclusion is founded on a "discrimination" concern, there is no legal authority to require an ILEC to provide line sharing if it does not use line sharing itself or offer it to others. To do so would amount to superior access, in direct conflict with the Eight Circuit court's vacation of the Commission's relevant rules.¹⁸

Finally, there is no basis for the Commission's statement that "the competing carrier effectively may be forced to provide both voice and data over the local loop it leases from the incumbent." Both the network architecture and the cost structure of an infrastructure capable of delivering advanced data services are very different from those of a network used to provide voice services. Historically, new market entrants have enjoyed significant marketplace success through their ability to design, engineer and deploy service platforms which take advantage of state-of-the-art technology and equipment. There is no reason to believe that the competitive success achieved by carriers such as MFS, Teleport, WinStar and others will be less achievable for new marketplace entrants focused on providing value to consumers by exploiting cutting-edge technologies.

In addition, a regulatory approach that effectively mandates the use of existing circuit-switched facilities by incumbents for voice services would be a poor policy choice because it favors one technology (that of the imbedded plant) over others which may eventually prove to be more innovative and technically advanced. Such an approach could potentially drive additional investment in copper loop plant and delay deployment

¹⁸ These rules included 47 CFR 51.305(a)(4) and 51.311(c). See Iowa Utilities Board v. F.C.C., 120 F. 3d 753, 813 (8th Cir. 1997).

¹⁹ <u>Id</u>.

of newer loop media such as fiber optics, regardless of the relative technical, economic and marketplace advantages of either solution.

C. A Host of Practical, Technical and Operational Issues Also Preclude Any Near-term Line Sharing Obligation.

The Commission's tentative decision not to mandate line sharing at the federal level²⁰ is also the appropriate choice from a practical standpoint. Apart from the legal and policy reasons discussed above, Ameritech agrees that "the record does not sufficiently address the operational, pricing and other practical issues that may arise if LECs are compelled to share lines with competitors."²¹ Many of these issues were discussed in detail in Ameritech's comments on the NPRM in this proceeding.²²

Obviously, today's local loop facilities, practices and support infrastructure were designed over many years to support integrated operation and control by a single carrier. The breadth of the questions posed in the FNPRM clearly illustrates that the use of different spectrum segments on a single loop by multiple providers creates a host of new issues and problems for all telecommunications carriers. The more important of these include such critical topics as service quality and reliability, provisioning and engineering practices, equipment compatibility, inter-carrier agreements and practices, and operational support system ("OSS") interfaces and modifications. Each of these topics in and of itself obviously presents a major (and time-consuming) development effort for the carriers involved. In Ameritech's view, such an effort would take a minimum of two

²⁰ FNPRM, ¶ 97.

²¹ Ibid.

²² In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability, CC Docket No. 98-147, Comments of Ameritech, filed October 16, 1998 (at 28).

years for it to complete -- after industry standards and regulatory requirements were fully developed.

Solving each of these issues and problems will undoubtedly represent a major cost for other parties as well. For example, the enormous costs incurred by equipment manufacturers who would develop necessary interoperability and interface standards, and then design and manufacture equipment to these new standards, cannot yet be quantified. At the same time, the demand -- if any -- for a full range of terminal, transmission, testing, administration, and other equipment needed to support various types of loop sharing arrangements discussed in the FNPRM has yet to be quantified. Like the carrier-related costs of line sharing discussed above, the assessment of equipment and facility demand, and the resulting product designs and pricing structure, will necessarily depend on the final form and content of industry standards only now being developed by industry standards bodies.

Only on a fully-informed basis can the equipment aspects of line sharing be realistically assessed for their practical and economic feasibility. While it may ultimately prove to be both feasible and attractive from a policy standpoint, no segment of the telecommunications industry has yet set forth -- or even developed -- sufficient data on which the Commission could base a decision to mandate line sharing.

Technical Issues

The Commission's out-of-hand rejection of ILEC warnings of "harms to the network" resulting from offering CLECs access to the high-frequency portion of the local loop's bandwidth may turn out to be premature. The amount of local loop plant currently used to provide advanced services (e.g., the XDSL family of services) is concededly

minimal when compared to existing services such as single-line residential and business services, ISDN, DS1, and other mainstay offerings. However, the absence today of significant numbers of trouble reports due to interference between these two categories of services does not mean this state can safely be assumed into the distant future. Indeed, as service providers begin more aggressive development and deployment of yet-unforeseen technologies, it can be assumed that the existing network will be required to carry and process more and more operational and administrative overhead. For example, in the early stages of the internet's exponential usage growth, it would have been impossible to foresee the significant changes in traffic patterns and holding times that have resulted. Yet, it is obvious that, since those early days, the planning, growth and operation of the entire wireline telecommunications infrastructure have been profoundly impacted by these changes.

Operational Issues

The operational challenges presented by line sharing are, without a doubt, broad-ranging and substantial. The Commission must view with a critical eye any attempts in this proceeding to minimize these challenges. As discussed above, line sharing in the form of providing access to the high frequency portion of a loop's bandwidth would have impact on existing analog voice services from both operational and administrative standpoints. If, as the Commission suggests, carriers were "allowed to request just the voice portion of a line" or "any unused portion of a line," these issues would be rendered much more complex and convoluted.

History demonstrates that the introduction of previous technologies has always required major efforts to deal with such issues prior to introduction. For example, the

introduction of multiplexed digital transmission systems (e.g., T-1 carrier and digital loop carrier) required the development and deployment of detailed practices, policies and support infrastructure to engineer, provision, assign, track, maintain, and administer those systems. Until these tasks were completed, carriers investing in such promising technologies did not have any capability to manage bandwidth across a physical copper interoffice pair. Likewise, the rapid introduction of fiber and SONET-based transport systems has again challenged carriers to keep their supporting infrastructure ahead of the curve in their trunking and private line networks.

Another major impact of line sharing on ILEC operations is presented by the simple fact that today's local loop facilities are engineered, provisioned, assigned, maintained on an integrated basis, for use and management by a single entity in the provisioning of voice services. The OSS infrastructure used to perform these functions clearly was not designed or equipped to manage the use by two carriers of a single facility, much less multiple-carrier use of small portions of a loop's total bandwidth. For one striking example, performing a simple, routine loop-back test on a shared loop could unavoidably disrupt service to other carriers' customers using that loop. This compelling illustration shows that line sharing would unquestionably complicate even the most routine operations.

The impact of line sharing on ILEC operations can also be expected to include the full gamut of inter-carrier relations. Issues that must be addressed include, by way of example, cooperative multi-carrier repair, testing and administrative practices, compatibility with other services (e.g., alarm monitoring), isolation and diagnosis of loop service quality problems, facility upgrades and transfers that may affect "loop sharing"

²³ FNPRM, ¶ 105.

carriers differently, loop and equipment record establishment and maintenance practices, loop conditioning tracking and coordination, and measurement of transmission characteristics on multi-user and multi-carrier loops.

Ameritech concurs with the Commission's tentative conclusion that

"to the extent that an incumbent LEC can demonstrate to the state commission that digital loop conditioning would interfere with the analog voice service of the line, line sharing is not technically feasible on that line, and the incumbent LEC is not obligated to share that line."²⁴

Also, to the extent that particular services can be demonstrated to be incompatible with ADSL or other advanced telecommunications technologies, sharing of lines used by an ILEC to offer those services should not be required. Services already known to be incompatible with ADSL include Basic Rate ISDN, certain types of proprietary-signalling (so-called "P-phone") services which use high-frequency signaling tones, lines served by derived facilities (e.g., small pair-gain systems), Public Switched Data Service, and services using "derived dial tone" (e.g., foreign exchange, private line ringdown, or Centrex service offered from a distant CO). Such a qualification of an ILEC's responsibility to permit sharing or perform loop conditioning would be in line with the Commission's tentative conclusion that ILECs need only perform loop conditioning "that would not interfere with the analog voice signal."

²⁴ FNPRM, ¶ 104.

²⁵ Ibid.

III. Spectrum Compatibility

A. Standards Process

Ameritech agrees with the Commission's tentative conclusion²⁶ that the industry process used to set standards for interference and spectrum management must be open to all involved industry segments, including ILECs, competitive local exchange carriers ("CLECs") and equipment suppliers. As the Commission also tentatively concludes,²⁷ the process should be competitively neutral as to structure and procedures, representation should be equitable across industry segments, without any undue weighting in favor of any segment, and without any express or effective "veto power" by any individual participant or class of participants.

The Commission also correctly concludes²⁸ that T1E1.4, the existing industry-based standards-setting body for spectrum management issues related to advanced services, offers the best choice for the development and evolution of compatibility standards and spectral density masks. As the Working Group for the ANSI accredited Standards Committee T1 ("T1 Committee") of the Alliance for Telecommunications Industry Solutions, Inc. (ATIS), T1E1.4 is charged with developing spectrum compatibility and management standards for DSL (Digital Subscriber Line) Access. The T1 Committee itself ensures by its rules and practices that membership and full participation are open to all parties with direct interests in the process and activities of standards setting.

The T1 committee's categories of members (i.e., local exchange carriers or "LECs", interexchange carriers or "IXCs", manufacturers, and generally-interested

²⁶ FNPRM, ¶ 79.

²⁷ Ibid.

parties such as users, user groups, governmental agencies and professional associations) ensure balanced representation without permitting domination or control by any one segment of its membership. Moreover, to prevent domination by any individual participant, the voting power of each of these four categories is limited to a fixed weighting percentage of the total votes, regardless of the number of individual entities in each category. These and other procedural measures ensure balanced representation and prevent the accumulation of "veto power" or inordinate sway over the outcome of T1E1.4's proceedings.

T1 proceedings are also fully open to participation by non-members, which (although they may not vote) are apprised of ongoing activities -- and may submit contributions to them -- via the T1 Committee's open-access electronic bulletin board system. Results of T1's standards-setting activities are open for full public comment during a 60-day review process after their submission to the American National Standards Institute ("ANSI") for that purpose. These and other similar measures serve to support the achievement of the goals contained in the FNPRM's tentative conclusions as discussed above.

The Commission plays, and should continue to play, an important oversight role in these industry standards processes. The appropriate role was developed by the Network Reliability and Interoperability Council ("NRIC") in response to the Commission's April 1996 modification of NRIC's Charter. At the Commission's behest, NRIC's Focus Group 2 developed recommendations regarding the Commission's participation, publishing them in July 1997 as part of NRIC's broader report to the

²⁸ FNPRM, ¶¶80-1.

Commission titled "Network Interoperability: The Key to Competition." These included recommendations that the Commission commit sufficient resources to provide:

- (1) a "single point of contact" for the exchange of information with standards developers;
- (2) ongoing monitoring of standardization activities via the internet and World Wide Web; and
- (3) if desired, an oversight function to address issues on a complaint basis if a party believes its needs are not addressed by the existing standards process.²⁹

Ameritech believes the Commission should continue to be guided by these recommendations for its role in the standards-setting process.

B. Spectrum Compatibility Standards

As the Commission correctly concludes, ³⁰ T1E1.4 is the best industry forum for development of power spectral density ("PSD") masks and other spectrum management practices to govern deployment of advanced telecommunications services. In addition to the above-mentioned guarantees of balanced industry-segment representation and decision-making, the T1E1.4 process also benefits from direct input by leading technical experts on DSL and other technologies.

A Committee T1 project has been initiated to develop standards for the spectrum management of loop transmission systems. Responsibility for this project was assigned to T1E1.4 in 1998. Since that time, T1E1.4 has held two special interim meetings to expedite the development of the Spectrum Management standard. Many sectors of the industry have participated in the T1E1.4 project including direct participation by CLECs,

²⁹ "Network Interoperability: The Key to Competition," Section 9.4.3, Recommendations to Federal Communications Commission, July, 1997 (p. 186).

³⁰ FNPRM, ¶ 81.

ILECs, and vendors who provide equipment to CLECS and ILECs. The first draft of the spectrum management standard was completed in June 1999, and Technical Subcommittee T1E1 has indicated that the document will soon be sent for Committee T1 Letter Ballot. It is expected that T1E1.4 will address comments that arrise during the Letter Ballot, so as to progress towards the eventual Committee T1 approval of the standard. Later, it is expected that T1E1.4 will start work on an Issue 2 Spectrum Management standard to enhance and extend the original standard.

T1E1.4 continues to make excellent progress toward its goal of adopting a spectrum management standard for DSL by the end of 1999. Specifically, the current Draft ANSI Spectrum Management Standard (9E140023) delineates several Classes of services, each class with its own specified PSD limit. By design, new Classes of services can be added to the standard as needed. Such an approach permits continuing innovation while protecting against crosstalk better than a single "generic" full-band PSD mask. In fact, this is one major value of the T1E1.4 standard under development. If that standard is not implemented, binder group segmentation and other protective measures would require more widespread implementation. Ameritech strongly supports this effort and believes it to be the most effective way to encourage innovation while ensuring that new devices are designed and deployed so as to minimize interference with other services within the same distribution and feeder cables or binder group.

C. Deployment Practices

In addition to seeking comment on compatibility standards, the Commission requests input on "methods to encourage the industry to develop fair and open practices

for the deployment of advanced services technologies".³¹ Ameritech believes that the ATIS sponsored Carrier Liaison Committee (CLC) fora are the best venues for this activity. The historical and primary role of the T1 Committee is to develop technical standards rather than operations-oriented implementation practices. On the other hand, the CLC fora have served the industry well with regard to implementation and operations agreements through the Network Interconnection and Interoperability Forum (NIIF) and the Ordering and Billing Forum (OBF). The NIIF typically addresses interconnection issues relating to installation, maintenance, and network management. Likewise, the OBF develops ordering and billing practices for the telecommunications industry. These fora are also designed to ensure open processes and are based on industry-wide contribution and consensus.

Again, the Commission should look to its own advisory committee (NRIC) for guidance with regard to deployment practices. The Implementation Task Group of Focus Group 1 of NRIC was organized to address implementation issues, and to identify and remedy areas where information sharing could avoid barriers to interoperability. The Task Group prepared a number of recommendations under Section 5.1.2 involving the use of the previously developed Network Interconnection Bilateral Agreement Templates and on the role of the NIIF in maintaining the templates going forward. The Commission should follow the recommendations already provided to it on methods relating to interconnection and interoperability.

As to the practice of segregating services within binder groups based on technologies, segregating distribution and feeder plant along technology lines would, with limited exceptions, provide relatively few benefits compared to the potential

³¹ FNPRM, ¶ 85.

complications and under-utilization of available pairs that would result from this practice.

The exceptions for which binder-group segregation is an appropriate measure include T1 carrier for interference prevention, and ADSL for performance improvement.

As the Commission correctly notes,³² AMI T1 has a known interference problem; this is because its wide bandwidth and high amplitude can easily cause excessive crosstalk to other services in the same binder group. For this reason, it is the current practice of Ameritech and other carriers to segregate this service from XDSL services as well as from ISDN and others. Because of the enormous existing network investment in T1 facilities, this practice can and should be continued on a "grandfathered" basis, and no "sunset" period should be mandated during which carriers must replace them regardless of the economics of such replacement decisions. Indeed, any regulatory mandate for replacement of otherwise useful equipment and facilities could be held to be an unlawful confiscation of the affected carriers' property.

Moving live DS1 services from T1 carrier to another DS1 transmission system could cause more trouble than would result from leaving T1 carrier systems in place. A lengthy out-of-service interval would result for any DS1 service being transitioned. Furthermore, the physical activity required for widespread removal of T1 equipment from CO, customer site, and mid-span locations would likely result in the introduction of trouble that would effect service to other customers.

Unlike many other XDSL technologies, however, non-overlapped ADSL creates virtually no near-end crosstalk to other ADSL services. For this reason, ADSL lines segregated in their own binder group can provide higher bit-rate service to more

³² FNPRM, ¶ 86.

customers than ADSL services mixed in binder groups with other broadband services.

Thus, from a plant efficiency standpoint, binder segregation of ADSL services should be permitted because it is extremely desirable for economic, technical and service availability reasons.

D. Dispute Resolution

As to interference dispute resolution, the Commission does not need to either adopt formal arbitration practices or mandate standards specifying what constitutes "significant degradation" of other services. In its standards-setting role as discussed above, the Commission can provide any necessary policy guidance to industry forum efforts (such as T1E1.4) that are currently establishing interference and performance criteria for ADSL and various other new types of transmission systems.

For many existing technologies, such criteria are already provided in ANSI interface standards for many services, and are based upon objective, accepted measures such as bit-rate, loop reach, and signal/noise ratios. The application of such measurable criteria will continue to reduce the need for external intervention or arbitration of interference disputes, and are preferable to using already-scarce Commission or state resources to arbitrate "he said/she said" debates. Indeed, voluntary industry efforts as described above will continue to effectively develop and enforce meaningful standards and deployment practices without the need for regulatory intervention.

IV. Conclusion

For the foregoing reasons, the Commission should not order line sharing at this time, but instead should continue to support ongoing industry standards efforts aimed at resolving the many operational, technical and administrative issues posed by line sharing.

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